Interview with Rear Adm. Nancy E. Brown

Vice Director, Command, Control, Communications, and Computer Systems

The Joint Staff

Rear Adm. Brown became Vice Director for Command, Control, Communications, and Computer Systems (J6), The Joint Staff, in August 2000. As the Joint Staff expert on C4, the directorate's mission is to: (1) Provide the CJCS advice and recommendations on C4 matters; (2) Support warfighters from the CINC to the shooter; (3) Lead the C4 Community; (4) Oversee support for the National Military Command System; and (5) Lead in identifying and resolving military aspects of information-based issues of national importance.

In August 2004, Rear Adm. Brown deployed to Iraq for a six-month tour as the Deputy Chief of Staff for Communications and Information Systems (DCS CIS) for the Multinational Forces-Iraq (MNF-I). Rear Adm. Brown, the highest ranking officer in the Information Professional Officer Community, leads a team of IPs and enlisted technology experts, Information Systems Technicians and Electronics Technicians, who are engaged in ground operations, rebuilding critical infrastructure and providing direct support to combat commanders. These technology warriors also provide vital communication links for the Iraqi government, coalition forces and remote operational posts.

CHIPS: Can you talk about your mission In Iraq?

Rear Adm. Brown: I'm the Deputy Chief of Staff for Communications and Information Systems (DCS CIS) for the Multinational Forces-Iraq (MNF-I). The mission of my organization is to conduct Command, Control, Communications, and Computer (C4) support of joint, combined and Iraqi Security Forces (ISF) operations in the Iraq Joint Operations Area (JOA). We plan, program, and direct headquarters, joint, coalition and ISF communications and information system networks for deployed forces across the Iraq JOA. Additionally we assure reliability of C4 systems, provide C4 policy and guidance and conduct network operations.

CHIPS: What technologies are warfighters using in Iraq?

Rear Adm. Brown: The network supporting the warfighter in Iraq is perhaps the largest and most diverse ever deployed. This network provides the full range of voice, video and data services to commanders on the ground and consists of not only new and legacy 'green' systems operated by our Soldiers, Sailors, Airmen and Marines, but also commercial systems, some operated by our military men and women, and some operated by a very capable group of contractors.

Our use of commercial technologies includes large wideband satellite terminals, more portable, very small aperture terminals (VSAT), switches, a Global System for Global Communications (GSM) cellular telephone network, voice over Internet Protocol (VoIP) solutions, mobile satellite systems, collaboration tools, optical fiber rings and microwave systems to name but a few.

Our biggest challenge and what we really need help with is information sharing. The staff is truly representative of the coalition with key positions held by representatives of all our coalition partners. The situation is further complicated by the Department of State and other governmental agency interactions that are part of our daily routine.

Current policy restrictions on information sharing with these partners and agencies coupled with the technical immaturity of cross domain solutions has driven us to multiple networks and increased complexities in an environment that deserves simplicity. Maintaining multiple networks is a strain on dollars, personnel and individual productivity.

CHIPS: What are your biggest challenges on The Joint Staff?

Rear Adm. Brown: Some of the biggest challenges on the Joint Staff have been synchronizing the Services. Each of the Services sees the world in a slightly different view, which of course drives their acquisition and fielding strategies. C4 acquisitions are as complicated as any other weapon system, like an airplane or a ship, but there are a lot more organizations involved. The challenge has been described as getting all the Services to come up to the starting line and jump off together. But it's actually much more than that, not only do the Services have to jump off together, they need to maintain lockstep so they finish together.

The systems we are acquiring today are so complex and wide reaching that all the pieces need to be acquired at the same time to realize their full potential. Using my airplane example, imagine purchasing an airplane in a fashion that one Service picks the cockpit, one Service picks the engine, another Service picks the landing gear. And then the parts are delivered in different years. That's what makes keeping all the Services synchronized so critical and such a challenge to the Joint Staff.

CHIPS: How do you evaluate the progress in tying together the command and control structure of the Navy, other Services and coalition members since you have been on the Joint Staff?

Rear Adm. Brown: Last year, DoD adopted the Joint Capabilities Integration and Development System (JCIDS) as a 'bridge' from requirements generation to actual acquisition of capabilities. JCIDS provides the framework to tie together Navy systems with

those of the other Services and allies. JCIDS provides an assurance of interoperability of programs through the use of Net-Ready Key Performance Parameters (NR-KPP), and allows the Joint Requirements Oversight Council to assess existing and proposed capabilities in light of their contribution to future joint concepts.

The ultimate objective of joint concepts is to guide the transformation of the joint force so that it is prepared to operate successfully in the next 10-20 years. To this end, we are developing the Net-Centric Joint Functional Concept which provides a joint measurement framework, describes a future Net-Centric end state, and provides the basis for military experiments and exercises. Even though JCIDS is only a little over a year old, we are already seeing the early results of this process in tying together C2 and other systems at the joint level. And we expect this will lead to synchronization of the Services to help build a stronger, more efficient joint force.

CHIPS: How close are we to an enterprise architecture across the Services?

Rear Adm. Brown: I'd say we are getting closer, but we still have a long way to go. During my time on the Joint Staff, we have made significant strides. Under the new JCIDS process, J6 stood up a Net-Centric Functional Capabilities Board (FCB) and implemented Net-Ready Key Performance Parameters that will continue to push the Services toward an overarching architecture. This enterprise will be fully populated by interoperable and complementary services and applications accessible by everyone, regardless of Combatant Command or Service. However, some of these processes take time to implement and mature. Additionally, in some cases we do not have the new net-centric replacement for certain legacy equipment.

Additionally, the Joint Operating Concepts and Joint Integrating Concepts are being developed so that everyone is on the same page and developing our Service and Joint capabilities within the same constructs. This is another effort that will bring together everyone under an enterprise architecture that will reach across all the Services, Unified Combatant Commands (COCOMs) and agencies.

CHIPS: I've heard you say that the Services should continue to innovate and explore technologies, but they need to do it smarter. What do you mean by this?

Rear Adm. Brown: Over the last two decades, the DoD share of the world's information technology research and development has decreased. Corporate America has been pouring money into developing new technologies. We, DoD, need to leverage some of the new technologies developed, but we need to do it in a fashion that protects our national security. Additionally, we need to find new and creative ways to get the technology out to the fleet faster. I feel the Navy's Commercial Technology Transfer Office is one of the ways we are addressing this problem.

CHIPS: Do you think the Services' IT dollars should be centralized?

Rear Adm. Brown: That is a sword that cuts both ways. On one hand, there would clearly be a benefit for the Services to pool their resources to ensure proper funding and fielding profiles are available to develop key Joint C4 capabilities. This particularly would be beneficial for strategic assets and complex acquisitions. The added benefit would be these programs would automatically be synchronized in development, acquisition and fielding.

Rear Adm. Nancy E. Brown and Army Maj. Gen. William H. Brandenburg, commanding general for Detainee Operations returning to Camp Victory, Baghdad from Camp Ashcroft.

On the other hand, I don't think it is necessary for all the Services' IT dollars to be centralized. The Services still need to maintain their role as 'train and equip' for the Joint Force. That way the individual Services will continue to protect their equities. If the Services' IT dollars are completely centralized the potential exists for that organization to drive DoD to a 'one size fits all' solution, which may or may not address the individual needs of the Navy or any of the other Services.

CHIPS: You were on the ground floor in the establishment of the Information Professional Officer Community. How do you evaluate its success and what future plans do you see for the community?

Rear Adm. Brown: The community is an overwhelming success as gauged by the demand from the fleet and joint communities for IP officers. IPs in every paygrade serve in key C4I billets across the fleet — 3 of 5 numbered fleet N6s, 7 of 12 Carrier Strike Groups (CSG) N6s, 3 of 3 Expeditionary Strike Groups (ESG) N6s, and 11 of 12 CSG (COMMOs), on all of the major joint staffs — and around the globe — Bahrain, Germany, Japan, Hawaii, Naples and Korea. Additionally, on the expeditionary front, there are 7 IP Individual Augmentees (IAs), (I make 8), in Iraq and 2 in Afghanistan.

Our challenges are how to keep pace with the demand and continue to provide an officer with the requisite experience and expertise. We are addressing these challenges in several ways. Three years ago when the community stood up, it had an inadequate inventory, no career path, and it lacked both training and qualification programs. It has made tremendous progress in each of these areas.

Today, there are 490 IP officers and we expect to meet our inventory

goal of 550 by the end of FY 2005. This goal is being met through lateral transfers from other communities. The community has established a sea-going career path with sea assignments at each paygrade and specific milestone sea-assignment challenges for lieutenant commanders, commanders and captains. Officers with orders to sea-going commands are routed through rigorous training courses that cover topics, such as joint and Naval C4I systems engineering, LINK architectures, combat systems, space fundamentals and knowledge management.

The training opportunities are closely related to the community's five-vector model (5VM), which is being developed by the Center for Information Technology (CIT) in San Diego as part of the larger Task Force Sea Warrior effort. The IP community is well on its way to being the first officer community to complete the job-task-analysis phase necessary to establishing a robust 5VM. The community has also worked closely with the Naval Network Warfare Command (NETWARCOM) to establish a formal qualification program.

This program has both a personal qualification standard (PQS) requirement and a continuing education requirement. The PQS is comprised of basic, intermediate and advanced level qualifications, which officers complete over the course of their careers. The continuing education piece requires officers to complete a certain number of continuing education units (CEUs) each year to maintain their technical competency. Also being developed/piloted are two courses: the IP Basic Course for new IP officers being developed by CIT and the IP Senior Officer Course (IPSOC) at the IP Center of Excellence at the Naval Postgraduate School. The first IPSOC was held in August 2004 and the next course is scheduled for March 2005. This two-week course is designed for IP commanders and captains.

The challenge to meet fleet requirements and do deliberate strength planning is best typified by example. The Littoral Combat Ship (LCS) C5I officer will be an IP officer. However, the IP community has worked closely with the Surface Line community to develop the right talent and quantity of officers for the job. This 1600 community officer will be expected to complete the Surface Warfare qualification as a young junior officer. The officer will then go to the Naval Postgraduate School in Monterey and complete a technical master's degree. After that, the officer will be sent to tactical action officer training courses, before being assigned to an LCS as a department head.

CHIPS: How do you think the challenge of knowledge sharing/management in the fleet should be approached?

Rear Adm. Brown: Knowledge management is an issue that involves effectively capturing and aligning what we know in an organization to execute the mission. It is a cultural challenge to employ knowledge sharing activities in everything we do. The thing we must hold to is that there is a direct connection between KM, readiness and effective decision making.

KM is not just an IT thing; it can be done without computers and networks. The effectiveness of KM relies on policy and tactics, techniques and procedures (TTPs) as much or more than it does on technology. As already discussed, today, policy arbitrarily restricts information sharing and that must be changed. It is also just as important to understand and have standard TTPs or the best technology in the world will not help us.

Rear Adm. Nancy E. Brown with Petty Officer Goebel cutting the cake at the Navy Birthday celebration Oct. 13, 2004.

Cmdr. Manuel Bialog, MNF-1 chaplain; Rear Adm. Nancy E. Brown; and Cmdr. Lee Thomas, Civil Engineer Corps.

The struggles that are faced in institutionalizing KM begin with people. People are the most important element of KM. People tend to share knowledge naturally in a face-to-face environment, but the challenge is to do the same thing in a distributed environment and focus the sharing of knowledge to support the mission.

This sounds simple enough, but there are a number of questions that need to be fleshed out. What mechanisms do we use to allow for knowledge reuse, mutual support, enterprise-wide learning and collaborative work? Are the policies, strategies and business rules in place for such things? Is the business value realized?

Answering those questions is the task of the knowledge manager. It is not enough for the knowledge manager to simply be the IT person who manages a portal. There is minimal value in just that alone. The KM officer must develop and foster the cultural change required to effectively share information. *The real challenge is to get the right information to the right person at the right time.* CHIPS

Rear Admiral Nancy E. Brown

Rear Adm. Nancy Brown is a 1973 graduate of Stephens College in Columbia, Mo. Following Officer Candidate School in Newport, R.I., in June 1974, the admiral reported to the Naval Communications Station, Norfolk, Va., as Communications Watch Officer, followed by Automation Officer and Personnel Officer. She then served as the Special Projects and Manpower Requirements Officer at the Naval Telecommunications Command in Washington, D.C.

After her tour in Washington, the admiral earned a Master of Science degree in communications systems management from the Naval Postgraduate School and a Master of Arts degree in National Security and Strategic Studies. She was then assigned to the Defense Commercial Communications Office. This joint tour qualified the admiral as a Proven Subspecialist in Communications and led to her designation as a Joint Specialty Officer (JSO).

Rear Adm. Brown then served as the Officer in Charge, Naval Radio and Receiving Facility Kami Seya, Japan. Returning from overseas, she went to the Joint Tactical Command, Control and Communications Agency in Washington, D.C., followed by an assignment as the executive officer at the Naval Communications Station in San Diego.

In August 1993, Rear Adm. Brown assumed command of Naval Computer and Telecommunications Station Cutler, Downeast, Maine. In August 1995, she served on the National Security Council staff at the White House.

In July 1997, she assumed command of the Naval Computer and Telecommunications Area Master Station Atlantic, a major shore command, in Norfolk, Va.

In 1999, the admiral returned to the White House as the Deputy Director, White House Military Office. While serving as the Deputy Directory, White House Military Office, she was selected for rear admiral (lower half).

In October 2000, the admiral reported to the Chief of Naval Operations as Deputy Director and Fleet Liaison, Space, Information Warfare, Command and Control (N6B). She assumed duties as Vice Director for Command, Control, Communications, and Computer Systems (J6), The Joint Staff in August 2002. Promoted to rear admiral on July 1, 2004, she is currently serving on the Multinational Forces-Iraq staff in Baghdad, as the Deputy Chief of Staff for Communications and Information Systems.

Rear Adm. Brown's decorations include the Defense Distinguished Service Medal, the Defense Superior Service Medal, the Legion of Merit (with Oak Leaf Cluster), the Defense Meritorious Service Medal (with Oak Leaf Cluster), the Meritorious Service Medal (with Oak Leaf Cluster), the Navy and Marine Corps Commendation Medal, the Navy and Marine Corps Achievement Medal, the National Defense Service Medal (with Bronze Star) and the Global War on Terrorism Expeditionary Medal.

ONE-NET

Transforming Overseas Navy Networks

ONE-NET is a Navy-wide initiative to install a common and secure IT infrastructure to OCONUS Navy locations. It is based on the Navy Marine Corps Intranet (NMCI) architecture and is designed to be interoperable with IT-21, the NMCI and the Global Information Grid (GIG) in the future.

ONE-NET incorporates a new network infrastructure, including servers and transmission lines with existing and new workstations to provide integrated information technology to the fleet. With ONE-NET, users will have standardized hardware and software, a centralized helpdesk, access to an OCONUS e-mail directory, increased information security, a standard e-mail address, and increased SIPRNET availability and remote access.

ONE-NET provides users with a standard application portfolio, referred to as the Workstation Baseline Software Configuration (Gold Disk). The WBSC contains: Windows XP Professional OS, Office XP, Internet Explorer, Adobe Acrobat Reader, Visio Viewer, Active Card Gold, Symantec Corporate Client Edition, WinZip 9.0, Roxio Easy CD Creator, Macromedia Shockwave, Flash Player 7, Quicktime Basic and DoD Install Root PKI Certificate.

The standard mailbox size for ONE-NET is 100 MB for NIPRNET and SIPRNET. The standard home drive is 850 MB. New Pentium 4/3.20 GHz desktop computers feature 512 MB memory, 3.5-inch floppy drive, a CDRW/DVD combo and two-piece stereo speaker system. Notebook users can rely on the Latitude D600, Pentium M 1.5 GHz with 512 MB of memory.

The transition to ONE-NET is being directed by the Naval Network Warfare Command. The Navy Enterprise Network or ONE-NET will affect more than three distinct theaters: Europe, the Middle East and Far East. Consolidating overseas networks will increase warfighting effectiveness by ensuring the technology infrastructure is current and under a single management source, according to Cmdr. Teresa Bandur-Duvall, deputy chief information officer for NETWARCOM. With ONE-NET, Sailors will be able to log on to a system that is reliable, and they will have a global address list to connect to people in other locations.

So far, only the Naval Support Activity (NSA) Bahrain has been cut over to ONE-NET. More than 3,000 workstations have migrated this past year under the Information Technology Support Center (ITSC) in Bahrain. This includes both the classified and unclassified side; ONE-NET now supports 73 tenant commands in the area.

Go to the ONE-NET Web site for more information at https://c4isr.spawar.navy.mil/onenet/login.cfm. To access the site, you must have PKI certification.

Based on an article in Navy NewsStand by Chief Journalist Joseph Gunder, NETWARCOM Public Affairs. CHIPS